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CURRENT INDUSTRIAL REPORTS

Consumer, Scientific, Technical, and Industrial Glassware

U.S. Department of Commerce
BUREAU OF THE CENSUS

ORIGINAL

1984

MA32E(84)-1
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SUMMARY OF FINDINGS

Total factory shipments of consumer, scientific, technical, and industrial glassware amounted to $2,923.5 million in 1984, a 8-percent increase over the 1983 level of $2,710.3 million. Establishments manufacturing glassware from glass produced in the same establishments accounted for approximately 75 percent of the total glassware shipments. Consumer (table, kitchen, art, and novelty) glassware accounted for 44 percent of the total glassware shipments and showed an increase of 10 percent for the 1984 shipments of $1,297.8 million over the 1983 figure of $1,183.5 million.

A description of survey methodology and related information appears on page 5.

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Table 1. VALUE OF SHIPMENTS OF CONSUMER, SCIENTIFIC, TECHNICAL, AND INDUSTRIAL GLASSWARE 1980 TO 1984

(Millions of dollars)

Product code	Product description	1984	1983	1982	1981	1980
32291 32317	Table, kitchen, art, and novelty glassware[1]	1,297.8	1,183.5	1,151.6	1,149.8	1,030.2
32292 32317	Lighting and electronic glassware[1]	851.8	815.2	734.7	810.0	778.5
32294 32317	All other glassware[1]	767.6	706.0	698.4	692.0	642.0

[1]The difference between industry 3229 and 3231 is as follows: industry 3229 represents glassware produced from glass made in the same establishment; whereas, industry 3231 represents glassware produced or fabricated from glass purchased or transferred from other establishments.

Address inquiries concerning these figures to U.S. Department of Commerce, Bureau of the Census, Industry Division, Washington, D.C. 20233, or call Ed Coen, (301) 763-7476.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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Table 2. SHIPMENTS OF CONSUMER, SCIENTIFIC, TECHNICAL, AND INDUSTRIAL GLASSWARE: 1984 AND 1983

(Value in thousands of dollars)

Product code	Product description[1]	Unit of measure	Number of companies	1984				1983			
				Total shipments (all industries)		Shipments[2] (SIC 3229)		Total shipments (all industries)		Shipments[2] (SIC 3229)	
				Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Consumer scientific, technical, and industrial glassware	(X)	(X)	(X)	2,923,482	(X)	2,186,977	(X)	2,710,334	(X)	2,146,405
32291 — 32317 —	Table, kitchen, art, and novelty glassware	(X)	(X)	(X)	1,297,790	(X)	950,029	(X)	1,183,460	(X)	r966,838
	Machine-made:										
32291 21	Tumblers (one-piece, excluding packers' tumblers)	M dozen.	20	49,561	209,860	46,955	195,678	52,496	218,575	50,036	206,683
32291 22	Stemware	..do....	16	14,600	149,253			12,751	121,007		
32291 23	Tableware	M pieces	14	205,835	244,079	(X)	408,881	268,351	246,214	(X)	513,877
32291 26	Cookware, ovenware, and kitchenware, including microwave specialty pieces	..do....	7	103,567	238,232			143,844	r237,857		
32291 28	Ornamental, decorative, novelty glassware, and smokers' accessories	(X)	30	(X)	(3)	(X)	(3)	(X)	(3)	(X)	(3)
	Handmade:										
32291 31	Tumblers (one-piece, excluding packers' tumblers)	M pieces	11	1,068	1,466			1,243	2,131		
32291 32	Stemware	M dozen.	16	750	18,529			769	20,115		
32291 33	Tableware	M pieces	12	3,907	17,856	(X)	78,458	4,275	r17,624	(X)	68,658
32291 38	Other handmade, table, kitchen, art, and novelty glassware	(X)	34	(X)	59,084			(X)	48,073		
32291 39	Interplant transfers and shipments to other glassware establishments of partially fabricated table, kitchen, art, and novelty glassware[4]	(X)	5	(X)	3359,431	(X)	3267,012	(X)	3271,864	(X)	3177,620
32292 — 32317 —	Lighting and electronic glassware	(X)	(X)	(X)	851,765	(X)	807,773	(X)	815,167	(X)	771,980
32292 41	Automotive lighting glassware	(X)	6	(X)	(5)	(X)	(5)	(X)	(5)	(X)	(5)
32292 43	Searchlight and other lenses	(X)	7	(X)	8,619			(X)	7,880		
32292 45	Electronic-tube blanks	(X)	8	(X)	7,563			(X)	8,325		
32292 47	Tubing and cane for electric light bulbs and fluorescent and neon lighting	(X)	7	(X)	92,214	(X)	219,102	(X)	84,189	(X)	207,676
32292 51	Electric light bulb blanks	(X)	4	(X)	122,418			(X)	121,202		
32292 55	Television tube blanks and parts; tubing cane and other glass parts for electronic tubes and devices	(X)	10	(X)	369,992	(X)	356,311	(X)	342,064	(X)	332,114
	Bowls and enclosing globes, lamp chimneys, lamp parts, shades, reflectors, torchiers, and other interior and exterior lighting glassware:										
32292 57	Interior	(X)	27	(X)	58,907	(X)	48,954	(X)	r63,850	(X)	r51,723
32292 59	Exterior	(X)	9	(X)	8,646			(X)	7,190		
32292 69	Interplant transfers and shipments to other glassware establishments of partially fabricated lighting and electronic glassware[4]	(X)	5	(X)	5183,406	(X)	5183,406	(X)	5180,467	(X)	5180,467
32294 — 32317 —	All other glassware	(X)	(X)	(X)	767,616	(X)	424,751	(X)	705,952	(X)	r403,245
32294 71	Tubing; rods and canes, all types except electrical and electronic	(X)	11	(X)	27,944	(X)	(D)	(X)	r30,565	(X)	(D)
32294 —	Scientific and laboratory glassware	(X)	67	(X)	325,870	(X)	147,691	(X)	308,828	(X)	r146,841
32294 72	Scientific and laboratory glassware	(X)	63	(X)	222,032	(X)	100,635	(X)	(NA)	(X)	(NA)
32294 74	Scientific and laboratory glassware, disposable	(X)	15	(X)	103,838	(X)	47,056	(X)	(NA)	(X)	(NA)
32294 75	Technical and industrial glassware	(X)	29	(X)	154,447	(X)	51,947	(X)	r126,582	(X)	r42,518
32294 77	Ophthalmic lens blanks and optical instrument lens blanks	(X)	8								
32294 79	Other glassware	(X)	25								
32294 89	Interplant transfers and shipments to other glassware establishments of partially fabricated glassware (except table, kitchen, art, novelty, lighting, or electronic)[4]	(X)	7	(X)	259,355	(X)	(D)	(X)	239,977	(X)	(D)
32291 — 32292 — 32294 — 32317 —	Consumer, scientific, technical, and industrial glassware not specified by kind	(X)	(X)	(X)	66,311	(X)	64,424	(X)	65,755	(X)	64,342

(D) Data withheld to avoid disclosing figures for individual companies. rRevised by 5 percent or more from previously published figures. (X) Not applicable.

[1] See text for specific definitions for individual products.
[2] Shipments by establishments manufacturing glassware primarily from glass produced in the same establishment.
[3] Data for product code 32291 28 is included with product code 32291 39 to avoid disclosure of individual company figures.
[4] The processing establishment reported the finished product on the appropriate product lines. This avoided duplicate reporting of the same product by separate establishments.
[5] Data for product code 32292 21 is included with product code 32292 99 to avoid disclosure of individual company figures.
[6] These data represent establishments which reported on the 1982 Census of Manufactures but have not provided detailed product information shown above. The data for 1983 and 1984 have been estimated based on the year-to-year change shown by reporting establishments.

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Table 3. VALUE OF SHIPMENTS, EXPORTS, IMPORTS, AND APPARENT CONSUMPTION OF CONSUMER, SCIENTIFIC, TECHNICAL, AND INDUSTRIAL GLASSWARE: 1984 AND 1983

(Thousands of dollars)

Product code	Product description	Manufacturers' shipments	Exports of domestic merchandise[1,2]		Percent exports to manufacturers' shipment[4]	Imports for consumption[1,5]	Apparent consumption[6]	Percent imports to apparent consumption
			Value at port	Estimated producers' value[3]				
	1984							
32291	Table, kitchen, art, and novelty glassware	1,297,790	65,386	57,840	4.4	463,206	1,703,156	27.2
32292	Lighting and electronic glassware	851,765	30,069	26,599	3.1	136,423	961,589	14.2
	1983							
32291	Table, kitchen, art, and novelty glassware	1,183,460	62,859	55,605	4.7	392,366	1,520,221	25.8
32292	Lighting and electronic glassware	815,167	34,234	30,283	3.7	91,774	876,658	10.5

[1]Comparison of domestic manufacturers' shipments, import numbers, and export numbers is shown in table 4.
[2]Source: Bureau of the Census data relating to EM 546, U.S. Exports.
[3]These values were derived by use of adjustment factors to exclude freight, insurance, and other charges incurred in moving goods to the port of export. This adjustment is made to convert the values to an approximation of the producers' value of exported goods. Current adjustment factors are based on data for 1981 which are published in Origin of Exports of Manufactured Products, M81(AS)-5, appendix B. The 1981 derived adjustment factor for this report is 0.8846.
[4]Calculated based on estimated producers' value.
[5]Source: Bureau of Census data relating to IM 145-X, U.S. Imports for Consumption and General Imports.
[6]Apparent consumption is derived by subtracting exports from the total of shipments plus imports, including duty. Estimated producers' value is used in the calculation of these data.

Table. 4. COMPARISON BETWEEN SIC-BASED PRODUCT CODES, SCHEDULE B EXPORT NUMBERS, AND TSUSA IMPORT NUMBERS: 1984

Product code	Product description	Export number	Import number
32291 32317 pt.	Table, kitchen, art, and novelty glassware	546.0010, 546.0030 546.0050, 546.0070	546.1120, 546.1140 546.1320, 546.1340 546.1820, 546.1840 546.2020, 546.2040 546.2100, 546.2300 546.2500, 546.3520 546.3540, 546.3800 546.3900, 546.4700 546.5220, 546.5240 546.5260, 546.6020 546.6040, 546.6060 546.6220, 546.6240 546.6260, 546.6420 546.6440, 546.6460 546.6620, 546.6640 546.6660, 546.6820 546.6840, 546.6860
32292 32317 pt.	Lighting and electronic glassware	547.3100, 547.3720 547.3740, 545.6020 545.6040	545.5300, 545.5500 545.5700, 545.6100 545.6300, 545.6400 545.6500, 545.6700 545.8100, 545.8500 545.8700

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DESCRIPTION OF SURVEY

Scope of Survey—This survey covers manufacturers of consumer, scientific, technical, and industrial glassware in the United States. Both establishments manufacturing glassware from glass produced in the same establishment and establishments fabricating glassware from glass purchased or transferred from other establishments are included.

Survey Methodology—The statistics in this publication were collected on Bureau of the Census annual Form MA32E, Consumer, Scientific, Techincal, and Industrial Glassware. The survey panel includes approximately 210 companies. Small establishments for which data in the 1982 Census of Manufactures were derived from administrative records of other government agencies (approximately 23 establishments) are not included in the mail panel. Data for these small producers are estimated based on the trend of establishments reporting annually and are not specific by kind.

Reliability of Data—Survey error may result from several sources: (1) inability to obtain information about all cases in the survey, (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is due to imputing data for nonrespondents, for late reporters, for small establishments not included in the mail panel, and for data which fail logic edits. Missing figures are imputed based on yearly movements shown by reporting firms. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are footnoted.

The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is not precisely known but is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

Revisions to Previous Period Data—Statistics for previous years may be revised as the result of corrected data from respondents, late reports for which imputations were made as described above, or other corrections. Figures which have been revised by more than 5 percent from previously published figures are indicated by footnotes.

Revisions include changes to prior period data resulting from reconciliation of the results of this survey with the 1982 Census of Manufactures to correct differences in reported data between the two series and to identify and verify new establishments included in the scope of this survey. Table 3 presents a comparison of data from the two series by census product class following the reconciliation.

Adjustment for Price Change—All dollar figures included in this publication are in current dollars; i.e., they have not been adjusted for price change.

EXPLANATION OF TERMS

Quantity and Value of Shipments—The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to a company's own branches are assigned the same value as comparable sales to unaffiliated customers; i.e., the value includes an appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Tumblers—Nonstemmed drinking glasses. Excludes packers' tumblers.

Stemware—Vessels with long and short stem and footed-ware used generally for drinking but may be used as dessert dishes.

Tableware—Items from which food and beverages are served or consumed, but not prepared. Excludes stemware and tumblers.

Cookware, Ovenware, and Kitchenware—Items of ceramic glass and heat-resistant glass used to cook over direct heat or in the oven, and items used in the preparation and storage of foods (e.g., cookie jars, mixing bowls, refrigerator dishes, and measuring cups). Includes microwave specialty pieces.

Ornamental, Decorative, Novelty Glassware, and Smokers' Accessories—Includes floralware, ash trays, humidors, apothecary, bathroom, candy, beverage coasters, fish bowls, piggy banks, etc.

Automotive Lighting Glassware—Includes sealed beam lenses, other outside lenses, and interior automotive glassware.

Searchlight and Other Lenses—Includes railroad, marine, air, and traffic lighting glassware.

Electric Light Bulb Blanks—Includes incandenscent photo flash and mercury vapor and high temperature lamps.

Tubing and Cane for Electric Light Bulbs and Fluorescent and Neon Lighting—Includes exhaust tubes and flares for incandenscent and fluorescent lamps.

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Electronic Tube Blanks—Includes radio, X-ray, radar, special tubes, cathode ray, power tubes, microwave, and storage tubes. Excludes television picture tube blanks and parts.

Television Tube Blanks and parts—Includes cylinders, rod-support insulators, diode beads and bodies, multiform parts and moisture getter.

Bowls and Enclosing Globes, Etc.—Includes lantern globes, chimneys, enclosing globes, shades, prismatic and diffusing globes, luminaire globes, decorative lighting glass parts and shields, and plates for fluorescent and incandescent lighting fixtures.

Scientific and Laboratory Glassware—Includes beads, beakers, bottles, burrets, centrifuge tubes, condensers, connecting tubes, crucibles, cylinders, desicattors, fritted discs, flasks, funnels, ground joints, jars, microscope slides, cover glasses, Petri culture dishes, pipets, special laboratory apparatus, stopcocks, test and culture tubes, thermometer and hydrometer blanks. and custom-made laboratory apparatus.

Industrial and Technical Glassware—Includes battery jars, industrial beads, blender jars, caps and bodies, coffee urn liners, explosion capsules, flow meter blanks, gauge glasses, lubrication glasses, copy machine cylinders, sight glasses, vacuum bottle parts, godet wheels, heat exchangers, milking machine accessories, glass pipe for chemical and food process and drain lines, raching rings, ground glass, glass knobs, insulators, etc.

Ophthalmic Lens Blanks and Optical Instrument Lens Blanks—Includes ophthalmic and optical lens blanks, color filters, photographic window blanks, prism blanks, telescope mirror blanks, infrared and ultraviolet transmitting glasses, and fibre optic glass parts. Excludes finished or semifinished lenses.

Other Glassware—Includes such products as glass blocks, nursery bottles, balls, radomes, nose cones, ampuls, vials, etc.

COMPARISON OF EXPORT, IMPORT, AND DOMESTIC OUTPUT DATA

The Standard Industrial Classification (SIC) system used for domestic output and the statistical export and import commodity classifications were developed independently. This results in considerable difficulty in comparing the three types of data for many commodity areas. The domestic output classification is based on type of industry; on the other hand, the export and import classification system is more materials oriented. Aside from the differences in the basic commodity classifications, there are additional problems involving import data, since there are a substantial number of imported commodities which are not produced in the United States or which are produced only in very small quantities and which, therefore, have no comparable domestic output classification. The relationships shown in this report should be considered only as approximations, since, in addition to the problems mentioned above, there are also the following problems affecting the comparability of the three sets of data.

Valuation—There are different methods of valuation for the three types of data:

Domestic Output—Valued at the point of production. It includes the net sales price, f.o.b. plant, after discounts and allowances, exclusive of freight charges and excise taxes.

Exports—Valued at the point of exportation. It includes the selling price, or cost if not sold, and inland freight, insurance, and other charges to the export point.

Estimated producers' values of exports have also been developed. These values more closely approximate the values reported for domestic output because they exclude freight, insurance, and other charges applied from the producing plant to the export point.

Imports—Valued at the first port of entry in the United States. It includes c.i.f. (cost, insurance, and freight), duty, and other charges to the import point.

Duplication in Quantity and Value of Output—Because producers' shipments of some commodities may be used as materials for incorporation into other commodities, combinations of data for such commodities may contain a certain amount of duplication. Thus, percentages of exports to output or imports to apparent consumption (output plus imports minus exports) at four-digit or broader levels may be understated. Where duplication is known to be substantial, the output data are appropriately noted in the table.

Low-Value Export and Import Transactions—Detailed commodity information is not included for individual import shipments valued at not more than $250 or for individual export shipments valued at not more than $500. This is believed to have only negligible effects on the statistics for the bulk of the commodities.

Manufacturers' Shipments, Not Specified by Kind—The value of manufacturers' shipments at the four-digit industry level often includes a small amount which is not distributed among the individual five-digit product classes. Export and import percentages at the more detailed levels might, therefore, be slightly overstated.

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Time Lag Between Output and Exports—There will be a lag between the time a commodity is produced or shipped by the producer and the time it is actually exported, especially when intermediaries (wholesalers, exporters, etc.) are involved. Ordinarily, this type of discrepancy is insignificant in annual figures.

"Direct" vs "Total" Commodity Exports and Imports—Export and import data do not include materials which are incorporated into other more finished products and exported or imported in finished form. Thus, by showing only direct exports and imports, the relation of exports to output and imports to apparent consumption for intermediate products is considerably understated.

Used Commodities—With a few exceptions, used or rebuilt commodities are classified in the same import or export codes as is new merchandise. Percentages are thus overstated to the extent that used or rebuilt products are significant in trade.

Geographic Area of Coverage—Import and export data reflect the movement of merchandise into and out of U.S. foreign trade zones, the U.S. Virgin Islands, and the U.S. customs territory (includes the 50 States, the District of Columbia, and Puerto Rico).

HISTORICAL NOTE

Data on glassware have been collected by the Bureau of the Census since 1942. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library. A list of these libraries may be obtained from the Bureau of the Census regional offices:

Office	Telephone
Atlanta, Georgia	(404) 881-2271
Boston, Massachusetts	(617) 223-2327
Charlotte, North Carolina	(704) 371-6142
Chicago, Illinois	(312) 353-6251
Dallas, Texas	(214) 767-0625
Denver, Colorado	(303) 234-3924
Detroit, Michigan	(313) 226-7742
Kansas City, Kansas	(816) 374-4601
Los Angeles, California	(213) 824-7317
New York, New York	(212) 264-3860
Philadelphia, Pennsylvania	(215) 597-4920
Seattle, Washington	(206) 442-7080

RELATED REPORTS

The Bureau of the Census publishes the following related reports:

Series	Frequency	Title
Current Industrial Reports		
M32G	Monthly	*Glass Containers*
M36D	Monthly	*Electric Lamps*
MQ32A	Quarterly	*Flat Glass*
MQ36B	Quarterly	*Electric Lamps*
MA32J	Annually	*Fibrous Glass*
MA38B	Annually	*Selected Instruments and Related Products*
Other Industry Reports		
M3-1	Monthly	*Manufacturers' Shipments, Inventories, and Orders*
(AS)	Annually	*Annual Survey of Manufactures (ASM)*
(MC)	Quinquennially	*Census of Manufactures*
Foreign Trade Reports		
EM 546	Monthly	*U.S. Exports—Schedule B—Commodity by Country*
IM 145-X	Monthly	*U.S. Imports for Consumption and General Imports*

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone Number
Current Industrial Report MA32E	Ed Coan	(301) 763-7476
Foreign Trade publications	Joyce Ware	(301) 763-5140
Census/ASM	Dale Gordon	(301) 763-7304
To order a Census Bureau publication	Customer Services (DUSD)	(301) 763-4100
International Trade Administration	John Harris	(202) 377-1178

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